Notice of Allowability	Application No.	Applicant(s)	
	10/529,790	SANO, TAKASHI	
	Examiner	Art Unit	
	RuiMeng Hu	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *6/7/2007*.

2. ☒ The allowed claim(s) is/are *1,3-5,8,9,11,13-15 and 18*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. **Claims 1,3-5,8-9,11,13-15 and 18** are allowed.

2. The following is an examiner's statement of reasons for allowance:

Consider **claim 1**, the best prior art of record found during the examination of the present application, **Gaskill et al. (US Patent 5136719)** in view of **Kianush et al. (US Pub. 2001/0036811 A1)** fail to specifically disclose, teach, or suggest a controller which detects suitable combination of on and off states of the switching elements such that the radio wave receiver is in a predetermined reception state for the at least two frequencies, writes into the memory data for setting the on and off states of the switching elements to the suitable combinations, reads the data from the memory in accordance with received radio wave, and turns on and off the switching elements based on the read data.

Gaskill et al. disclose a radio wave receiver (Abstract) comprising: an antenna (figure 1, antenna 12); a memory (figure 3, memory 54) which is configured to store at least two items of data for setting a capacitance of the variable capacitor section to at least two suitable values that are suitable for receiving radio waves having at least two frequencies; and a controller (figure 1, controller 16) which determines an optimum bias voltage of the varactor with which the radio wave receiver is in a predetermined reception state and writes optimum bias voltage data into the memory and, controls the

variable capacitor based on the optimum bias voltage data (column 4 lines 35-55, column 5 lines 37-46, column 6 lines 11-14).

Kianush et al. only disclose using switched capacitors tuning circuit for tuning frequency (figure 3, paragraphs 12, 25-28) thus the use of varactors and DC/DC converters can be avoided, as make it possible to use a lower voltage, and the required frequency is sent to the integrated receiver IC by a so-called bus. This frequency word is used by the PLL to tune the VCO to the correct frequency. A derivative of the same frequency words is sent to the front-end switched-capacitor network. This is then decoded to drive the capacitor array. The tuned circuit is then positioned, within the acceptable tolerance, at the correct channel. These teachings clearly differ from the claimed invention; therefore, claims 1,3-5 and 8-9 of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Consider **claim 11**, the best prior art of record found during the examination of the present application, **Gaskill et al. (US Patent 5136719)** in view of **Kianush et al. (US Pub. 2001/0036811 A1) and Sakami et al. (US Patent 4315332)** fail to specifically disclose, teach, or suggest a controller which detects suitable combination of on and off states of the switching elements such that the radio wave receiver is in a predetermined reception state for the at least two frequencies, writes into the memory data for setting the on and off states of the switching elements to the suitable combinations, reads the data from the memory in accordance with received radio wave, and turns on and off the switching elements based on the read data.

Gaskill et al. disclose a radio wave receiver (Abstract) comprising: an antenna (figure 1, antenna 12); a memory (figure 3, memory 54) which is configured to store at least two items of data for setting a capacitance of the variable capacitor section to at least two suitable values that are suitable for receiving radio waves having at least two frequencies; and a controller (figure 1, controller 16) which determines an optimum bias voltage of the varactor with which the radio wave receiver is in a predetermined reception state and writes optimum bias voltage data into the memory and, controls the variable capacitor based on the optimum bias voltage data (column 4 lines 35-55, column 5 lines 37-46, column 6 lines 11-14).

Sakami et al. clearly disclose a radio-controlled timepiece (figure 1, Abstract) comprising: a time code generator (figure 2, time signal detector 21) which generates a time code based on the radio waves received by the radio wave receiver; a clocking unit (figure 2, counters 29 and 30) which counts a current time; and a correction unit (figure 2, time correction circuit 31) which corrects current time counted by the clocking unit based on the time code generated by the time code generator.

Kianush et al. only disclose using switched capacitors tuning circuit for tuning frequency (figure 3, paragraphs 12, 25-28) thus the use of varactors and DC/DC converters can be avoided, as make it possible to use a lower voltage, and the required frequency is sent to the integrated receiver IC by a so-called bus. This frequency word is used by the PLL to tune the VCO to the correct frequency. A derivative of the same frequency words is sent to the front-end switched-capacitor network. This is then decoded to drive the capacitor array. The tuned circuit is then positioned, within the

acceptable tolerance, at the correct channel. These teachings clearly differ from the claimed invention; therefore, claims 11,13-15 and 18 of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu
R.H./rh
June 22, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER
Edan Orgad 6/25/07